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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/564,961

09/28/2006

Tomoyshi Yamashita

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EXAMINER

TON, ANABEL

ART UNIT

PAPER NUMBER

2875

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/564,961	Applicant(s) YAMASHITA ET AL.	
	Examiner ANABEL M. TON	Art Unit 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-27 is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☒ Claim(s) 8-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/06, 6/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 re rejected under 35 U.S.C. 103(a) as being unpatentable over
Matsumoto ET a (6,502,947) and further in view of Cobb, Jr et al (4,984,144).

1. Matsumoto discloses a light source device comprising: a light conductor which has a first light incident end surface and a second light incident end surface that extend in substantially parallel directions relative to each other and that are positioned on mutually opposite sides, and a light emitting surface; a first primary light source(fig 4b) and second primary light source(fig 4b))disposed respectively adjacent to said first light incident end surface and second ; and a light deflecting element which has a light incident surface disposed facing said light emitting surface and a light emitting surface positioned on the side opposite from this light incident surface, wherein a directional light emitting functional part with an average inclination angle of 0.5 to 15° is formed on at least one surface of said light conductor, i.e., the light emitting surface or the back surface positioned on the side opposite from this light emitting surface(fig 4) and a plurality of mutually parallel prism rows that extend in a direction substantially parallel to said first light incident end surface and said second light incident end surface are formed on the light incident surface of said light deflecting element, each of these prism

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rows has a first prism surface on the side close to said first primary light source and a second prism surface on the side close to said second primary light source, said first prism surface has a first region that extends in the direction of extension of said prism rows and a second region that extends in the direction of extension of said prism rows (fig 1). Matsumoto does not disclose the vertical angle of the prism rows is 80° to 120° ; the difference in the angle of inclination between said first region and said second region is 5° to 20° ; and said second region has a smaller angle of inclination with respect to the normal direction of the prism row formation plane than said first region. Cobb discloses a light emitting device with such an arrangement of prism (see fig 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Matsumoto with the prism shapes of Cobb for the purpose of providing Matsumoto with a predetermined light output of a desired brightness caused by internal reflection of the light resulting from the shapes of the prism in the prism plate. With regards to the recitation wherein said second region is positioned further from the top part of said prism rows than said first region, since the term "further from" is not clearly identified, Matsumoto in further view of Cobb is considered to satisfy this limitation.

- With regards to the ratio of the width of said second region to the width of said prism rows in the cross section perpendicular to the direction of extension of said prism rows is 10 to 40%, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Matsumoto in further view of Cobb to have the above ratio, since it has been held that where

the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only ordinary skill in the art. *In re Aller*, 105 USPQ 233.

- At least one surface among said first region, said second region and said second prism surface consists of a single plane or curved surface (Matsumoto, figs 1 and 4).
- said first region deflects (by inside surface reflection) the light that is emitted from said light emitting surface and introduced into said prism rows from said second prism surface in the direction forming the first angle with respect to the normal direction of said prism row formation plane, said second region deflects (by inside surface reflection) the light that is emitted from said light emitting surface and introduced into said prism rows from said second prism surface in the normal direction of said prism row formation plane or in a direction in the vicinity of this normal direction, and said second prism surface deflects (by inside surface reflection) at least the light that is emitted from said light emitting surface and introduced into said prism rows from said first prism surface in the direction forming the second angle with respect to the normal direction of said prism row formation plane(Cobb).;
- Said second angle is positioned on the opposite side of the normal direction of said prism row formation plane from said first angle (Cobb).
- the direction forming said second angle is said normal direction or a direction in the vicinity of said normal direction(fig 4, cobb)

Allowable Subject Matter

2. Claims 19-28 are allowed.
3. Claims 8-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANABEL M. TON whose telephone number is (571)272-2382. The examiner can normally be reached on 08:00-16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Anabel M Ton
Primary Examiner
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5. Primary Examiner, Art Unit 2875